

**ESKIMOS  
INDIANS  
and  
ALEUTS  
of ALASKA**

*a Digest*

**Anchorage Area**



**U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
Public Health Service**

ESKIMOS, INDIANS, and ALEUTS

OF ALASKA

- A DIGEST -

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ANCHORAGE AREA

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U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Public Health Service

Bureau of Medical Services

Washington, D. C.

Division of Indian Health

March 1963



*Chugach Mountains near Anchorage*

*Photograph by J. Malcolm Gicany, Juneau*

## FOREWORD

The seventh and last in the series of Division of Indian Health "Digests" dealing with the various American Indian populations concerns the Alaska Native peoples - Aleuts, Eskimos, and Indians - their environment and their health. As with the rest, it aims to serve as a composite of general information with emphasis on matters of specific interest to health personnel.


The Alaska Digest differs from the others because of the variances between Alaska and the Federal Indian Reservation States in the "lower 48". The beneficiaries of the Division's program in Alaska include sizable numbers of Eskimos and Aleuts in addition to Indians, and there are only a few small, thinly populated reservations. Health services developed much differently in Alaska, and the whole complex of Alaskan life has been affected by the only-recent (1959) achievement of Statehood.

For these reasons, more history and background details than usual are presented, and health data are included to show trends in vital events since 1949 which are not available elsewhere in this form.

Instead of reservation fact sheets, brief summaries are included for ready reference on health resources and services in each of the health service units under the jurisdiction of the Division's Alaska Native Health Area Office at Anchorage. No attempt is made to describe conservation or development projects, educational endeavors, or Federal, State, and local public assistance and welfare programs.

Digests are prepared in the Program Analysis and Special Studies Branch of the Division. Mr. Warren J. Cardwell, former Assistant Branch Chief, and now Assistant Tribal Relations Officer, had primary responsibility for the preparation and development of this presentation with the assistance of the entire branch in searching information sources and assembling and arranging the statistical materials and fact sheet data.

Special credit is due to Area and Field Office staff members in Anchorage and Mount Edgecumbe for their invaluable assistance in reviewing and verifying material and in providing additional information. Acknowledgment also is made of the excellent suggestions and cooperation of the members of other branches of the Division of Indian Health.

  
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Assistant Surgeon General  
Chief, Division of Indian Health

PUBLIC HEALTH SERVICE  
BUREAU OF MEDICAL SERVICES  
INDIAN AND ALASKA NATIVE HEALTH AREA OFFICES\*



\*Within the Area Office jurisdictions are 4 Indian and Alaska Native Health Field Offices:

Aberdeen Area

Bemidji, Minnesota

Albuquerque Area

Albuquerque, New Mexico

Window Rock, Arizona

Anchorage Area

Mt. Edgecumbe, Alaska

\*\*Services to the Seminole Indians, Florida, administered through the PHS Regional Office, Atlanta, Georgia.

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## INTRODUCTION

American Indians live in every State, but most of them reside in 23 States which contain Federal Indian Reservations, the majority west of the Mississippi River. The Alaska Natives (Indians, Aleuts, and Eskimos) are in the State of Alaska.

The April 1960 U. S. Census of Population counted approximately 509,100 Indians outside of Alaska, 455,000 in the Federal Indian Reservation States, and 54,100 in the remaining States and the District of Columbia. In Alaska, which became a State in 1959, 14,444 persons identified themselves as Indians. Together with the majority of an additional 28,655 classified as "other" (assumed to be Aleuts and Eskimos), there is a total of some 43,000 "Alaska Natives."

Responsibility for the provision of health services for Indians and Alaska Natives was transferred to the Public Health Service, Department of Health, Education, and Welfare, from the Bureau of Indian Affairs, Department of the Interior, on July 1, 1955. The Service administers the program through the Division of Indian Health in its Bureau of Medical Services. An estimated 337,000 Indians and 43,000 Alaska Natives are considered potential beneficiaries, in varying degrees, of this health program. These beneficiaries reside on some 250 Federal Indian Reservations, colonies, communities, their adjacent land units, and in several hundred Alaska Native villages.

At the present time the Division of Indian Health operates 50 hospitals for Indians and Alaska Natives. These hospitals have outpatient clinics where medical and dental care for ambulatory patients and preventive health services are provided. The Division also provides outpatient services at 42 field health centers, including 16 at Bureau of Indian Affairs boarding schools, and at numerous health stations - many of them satellite to Public Health Service Indian and Alaska Native hospitals and health centers. Itinerant Division health teams provide health services for small numbers of people in very remote locations.

Medical care and preventive health services are provided under contractual arrangements with some 200 community and non-Federal government hospitals and with some 400 private physicians, dentists, and other health practitioners. Several local and State welfare departments, under contract, also arrange for medical and hospital care. In addition, public health services are made available through 20 contracts with 14 State health departments and their subdivisions.

Education and welfare services, resources management, construction of buildings and roads are functions of the Bureau of Indian Affairs with which the Division of Indian Health maintains close working relationships. Both organizations operate through similar systems of Area and Field Offices.

Each Area comprises large numbers of Indian or Alaska Native people with heterogeneous cultural patterns and varying economic circumstances. There are in the United States today several hundred Indian tribes and bands, each with distinguishing characteristics. Some tribes or bands cluster together at one location, but more often they are scattered over an extensive area. Once a numerous people, thought to have numbered around 800,000, Indian and Alaska Native populations were sharply reduced by tuberculosis, smallpox, dysentery, and other diseases brought by the early white settlers. Since about 1900 their numbers have been increasing, but Indian and Alaska Native people are still faced with a burden of illness far in excess of that found in the general population. Most of their illnesses are from preventable diseases which have long been under control in the majority of the Nation's population.

In planning and developing the health program through effective use of available resources, the Public Health Service needs basic facts about Indian and Alaska Native people. The series of Digests entitled Indians on Federal Reservations in the United States has been prepared in an effort to meet this need. A separate one has been prepared for the groups in each of the Division of Indian Health Areas.

This digest dealing with Alaska is the last of the series. It must be unique for three reasons. First, the Indian Health Division beneficiary group in Alaska includes sizable numbers of Aleuts and Eskimos in addition to Indians. Second, reservations are few in number, small, and provide places of residence for a very small percentage of the Native population. Third, health services developed differently in Alaska than in other States. The digest contains information about Alaska Natives - their environment, ethnic composition, and health. It traces the development of health services available to them through the field facilities and contractual arrangements of the Alaska Native Health Area Office at Anchorage and the Mount Edgecumbe Field Office. It describes the relationships of the Division of Indian Health to other PHS agencies in the State, the State Government and its Branches, and two other Federal agencies - the Bureau of Indian Affairs, and the Fish and Wildlife Service.

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ALASKA, surrounded on three sides by water, has a 26,000 mile coast line dotted with thousands of islands. Its 586,400 square mile territory, twice the size of Texas, is almost one-fifth as large as all of the other States combined. Physiographically, Alaska is readily divided into three major regions - the Pacific Mountain, Central Plateau, and the Arctic Slope.

The spectacular Pacific Mountain region encompasses the mountainous and heavily forested southeastern and southcentral Alaska, and the famed southwestern part of the State, including the Aleutian Islands. This area is noted for its mineral deposits - gold, platinum, and antimony among them - its vast salmon fishing industry, game animals such as the Alaska Brown or Kodiak bear, the Alaska fur seal of the Pribilof Islands, and magnificent sights including Mount McKinley and the Tongass National Forest. The coastal climate is moderate to

mild with heavy rainfall. Principal cities include Juneau (the State capital), Sitka, Ketchikan, Anchorage (the largest city in the State), Seward, Cordova, and Kodiak. Much of the inland portion of the region is very sparsely settled.

The Central Plateau region is characterized by broad plateaus and lowlands with mountains and rivers such as the fabled Yukon. Seasonal temperature extremes are usual and much of the region's subsoil is frozen year-around. The tundra and the wooded areas abound with fur animals and with game such as moose, caribou, mountain sheep, and black bear. This is a leading gold-producing area with Fairbanks, one of the region's principal settlements, and the Seward Peninsula being centers of the industry. The storied gold rush at the turn of the century was centered around Nome.

The Arctic Slope is bounded on the south by rugged mountains and on the north by the Arctic Ocean. It is characterized by permanently frozen subsoil called permafrost. Much of the interior from the Brooks Range to the northern shore is uninhabited. Most of the villages are along the coastline. Barrow is one of the larger communities.

The great distances, extremes in climate and geography, and the complications of northern Alaska's famous long "days" and "nights" are formidable barriers to good and easy communication, but are becoming less so with the expanding construction of roads. It falls on airplanes (weather permitting), radios, and in season, boats, however, to lead in the fight against isolation in this vast, sparsely settled State. This is particularly true of the areas in which the majority of Alaska Natives make their homes.

### The Alaska Native People

There are 226,000 people in Alaska according to the 1960 U.S. Census of Population. Almost a fifth of these, about 43,000, are Alaska Natives - descendents of Eskimos, Indians, and Aleuts who lived in the Territory at the time of purchase from Russia by the United States in 1867. Indians number 14,444, and the majority of the remainder, estimated at over 80 percent, are Eskimos. The Alaska Native population has increased by 27 percent since 1950.

### Yesteryear

The Tlingit and Haida are the two largest Indian groups in the southeastern part of the State. In bygone days, these people lived in permanent villages. Village life was possible due to abundant natural resources - game animals such as deer and bear, as well as berries, salmon, and shellfish, to cite but a few. Trees were of special importance because they provided the material for totem poles (for which these people are famous) on which symbols of family histories were carved, houses and household utensils, canoes, beautifully made boxes, religious paraphernalia, and weapons. These are the Indians who practiced the well-known potlatch ceremony. It involved a person giving away or otherwise dissipating his possessions to gain honor and prestige. Such a person

did not starve or otherwise go without for long, because he could acquire more from the abundant natural resources and, in addition, he received goods from others giving potlatches. These inquisitive people were greatly interested in health and sought to understand causes of their maladies, many believing that magical practices were responsible. A variety of ointments and poultices were used in treating ailments.

Another large group of Indians, Athabaskan speaking people, lived mainly in the rugged interior of Alaska and along the coast in the southcentral regions of Cook Inlet and Prince William Sound. In past times, these people roamed in search of caribou, moose, bear, fish, and other game, as well as berries and a variety of other plant foods. The need for constant roaming in search of life's necessities tended to prevent development of permanent villages as elaborate as those of the Indians of the southeastern part of the State. The Athabaskans did, however, develop extensive trade relationships with other Alaskan groups, particularly the Tlingit, exchanging furs and other possessions for oil, copper items, blankets, and other things not abundant in their home territory. The Athabaskans had several well-developed ideas concerning health. For example, through tabus they in effect isolated people with certain unnatural conditions of the body, often believing sickness had come as a result of magical or supernatural factors.

The Aleuts lived on the coasts of the Alaska Peninsula as well as the Aleutian Islands and were almost completely dependent on the sea for their way of life. Abundant seals, shellfish, and seabirds were among the items included in the Aleuts' diet. Even materials for clothing came from the sea - sealskin being an example. The plentiful supply of food permitted development of permanent villages characterized by huge houses sheltering from 10 to 40 families. The men in these permanent settings became famous as sea hunters, and the women excelled in handicrafts, including manufacture of some of the world's finest baskets. The Aleuts had a knowledge of anatomy which was remarkable among non-literate people. They practiced some surgery, and used a wide variety of herbs for curative purposes.

The harsh weather and topography of the north and northwest provided the traditional home settings for the Eskimos. Over the centuries they developed techniques for dealing with their unkind physical environment. Permanent villages were the rule, but temporary winter and summer camps convenient to food resources were needed. Food was obtained largely through hunting on land and sea, for which Eskimo men are famous. The bill of fare consisted of meat, fish, berries, wild greens, and tuberous roots. Practically all animals and animal products were valued. Skins were made into clothing (such as parkas and mukluks), boats, drum heads, and a large variety of other items important to the Eskimos' economy, religion, art, health, games, and general well-being. It is these people who are usually associated with the kayak, dogsled, and beautifully carved ivory objects. Like the other Alaskans, Eskimos believed supernatural and magical phenomena caused much illness, and shamans (spiritual leaders) assisted in cases of serious illness, while laymen, using home remedies, treated minor ailments.

## Today

At present the ways of life of all the Eskimos, Indians, and Aleuts are in a state of change which is much more rapid for some than for others. The rate of change depends on difference in geographic location and historical variations in experiences and contacts with the non-Native population.

Alaska Native awareness of world affairs and the ways of life of others is rapidly expanding. Formal educational experience is obtained through schools - Federal, State, city, and parochial - including post-high school institutions. Further, more and more people are in close contact with other Alaska peoples whose ways of life appear attractive to many. Some gain experience through military service and other travel.

Present-day broad generalities about the Alaska Natives' changing ways of life are most difficult to make. Some, however, can be described.

Village life is now the pattern among all groups. Some settlements have only 50 to 100 residents, but there is a strong trend toward concentration in large villages. Although this is decreasing, villagers still move away during the warmer months of the year. It is estimated that about one-half of the Alaska Natives live in modest frame buildings constructed of commercial lumber or of driftwood, packing crates, and other miscellaneous pieces of wood. Of the remainder, two-thirds live in crude log houses, one-third (or fewer) in sod igloos excavated underground for purposes of warmth. The dome-shaped snow igloo, so often considered typical of Eskimo housing, is not used at all in Alaska, although occasionally a makeshift snow shelter may be built on the open trail.

Many of the people continue to depend for food on their catch of the hunting and fishing seasons. Wild meat and fish still furnish the major portions of protein, vitamins and minerals in the native diet. As game and fish are becoming scarce at some places, they are being replaced by highly valued and sought after foods from stores. This is true, too, of clothing and other items once made of skins and other "natural" materials at home. These items are obtained from stores through trade or with cash. The people are increasingly dependent on cash income obtained from sale of handicrafts, trapping, work in the commercial fishing industry, and services to airlines, government agencies, and construction contractors. Although herding of reindeer is famous as an Eskimo industry, there are now only a few domestic herds.

Like all peoples of the world, those in Alaska have always had interest in their health and measures to preserve it. This was revealed above by brief references to healthful practices in bygone days. Awareness of the value of modern health methods is spreading among these people. The result is increasing acceptance and utilization of available modern health resources.

## ALASKA NATIVE HEALTH AND HEALTH SERVICES

### History

The development of health services for Alaska Natives was founded on the energy and spirit of close cooperation typical of groups facing common problems in a vast, pioneer setting. Cooperation continues to be a keystone in the planning and provision of these services and involves Federal and State agencies as well as private organizations and individuals.

Although some itinerant health services were previously available, the first organized Federal medical care program for the indigenous peoples of Alaska was established in 1914. It was under the auspices of the Bureau of Education in the United States Department of the Interior, operated in conjunction with the first Territorial schools, and offered services for Eskimos, Aleuts, and Indians only. In 1915, the first Federal hospital for these peoples - a 20-bed facility - was opened in Juneau.

Effective March 16, 1931, the program was transferred within the Department of the Interior to the Office (later the Bureau) of Indian Affairs. Within that organization it was designated the Alaska Native Service. Under this jurisdiction additional hospitals were made available in Alaska. The first was constructed at Kotzebue in 1931 (replaced by the Public Health Service in 1961), followed by the opening of facilities at Barrow (1939), Tanana (1941), and Kanakanak (1941). The Mount Edgecumbe facility at Sitka, originally operated by the Military Establishment, was transferred to the Department of the Interior in 1946. The major Federal medical center for Alaska Natives was opened at Anchorage in 1953. A new hospital replaced, in 1954, the original structure at Bethel which had been destroyed by fire.

On the whole, health services, including outpatient clinics, were concentrated within hospitals. Limited itinerant clinic services were also provided by hospital staff. These efforts were directed to aboriginal groups in Alaska for whom the Bureau had responsibility for education and other services as well as health. This is in contrast to the health program of the Territorial Government which was concerned with all other Alaska residents and those few Natives who lived in close proximity to them. In addition to the BIA and the Territorial Government, the United States Defense establishment in Alaska as well as the Coast Guard and the U. S. Fish and Wildlife Service, the latter with facilities in the Pribilof Islands, were vitally concerned with the health of American citizens in the Territory.

The sheer vastness of the geography, scattering of populations, and limited resources made clear the need for careful examination of health problems in Alaska.

In 1946 and again in 1947, the Department of the Interior engaged an advisory committee of physicians named by the American Medical Association with the purpose of surveying "overall medical conditions in the Territory of Alaska." After a three-week tour, the second group formulated a number of recommendations in its report, "Medical Conditions in Alaska." Among them was creation of a special organization to conduct continuing studies of health in the Arctic.

The Arctic Health Research Center, located in Anchorage, was established by the Public Health Service in 1948 and entrusted with responsibilities to administer grants-in-aid to the Territory to meet special health needs, provide technical assistance through the assignment of public health personnel to the Alaska Department of Health, and conduct research.

Continuing interest led to undertaking another, more comprehensive survey of Alaska's health. The survey was sponsored by the Department of the Interior and conducted by a group of doctors and consultants headed by Dr. Thomas Parran, Dean, Chief of the Graduate School of Public Health, University of Pittsburgh, and former Surgeon General of the United States Public Health Service. The team arrived in Juneau in July 1953. A schedule was then presented to the Department of the Interior in February 1954. As finally published, Alaska's Health, popularly known as the "Parran Report", contains a wide variety of related facts. A basic finding of the Parran Team pointed to need for "some measure of joint action between Alaska and the Federal Government."

The "Parran Report" had far-reaching consequences for health services in Alaska. Its recommendations played a part in strengthening Federal contracts with the Territory for health education, village sanitation, and public health nursing services to Alaska Natives. Also, nutrition, oral health, mental health, and tuberculosis control services were broadened. A vast chemotherapy program for ambulatory treatment of tuberculous Alaska Natives was accelerated. The latter program was instituted in 1954 just prior to the enactment by the 83d Congress of Public Law 568, which designated the Public Health Service as the agency to administer an expanded and improved Indian Health Program, effective July 1, 1955.

### Health Status

The health status of Alaska Natives is still many years behind that of other Americans as a whole. Extremes in climate, social and geographic isolation, crowded living conditions, heterogeneous cultural backgrounds, limited economic opportunity, and varying levels of understanding of good health practices and degree of acceptance of available health services are among the complex factors contributing to a high incidence of illness and early loss of life.

Accidents are the leading cause of death among Alaska Natives, showing a rate over four times that for the general population of the country. Similarly, the rate for certain diseases of early infancy, the second leading cause of Alaska Native deaths, is three times higher among Aleuts, Eskimos, and Indians. Striking with particularly high frequency and severity in Alaska Natives of all ages, and especially among infants, are the infectious diseases. Influenza and pneumonia,

for example, result in a death rate among these people four times that seen among the rest of the population. The tuberculosis death rate, although substantially reduced in recent years, exceeds that for all races by over six times. Respiratory infections, phlyctenular kerato conjunctivitis, otitis media, mastoiditis and streptococcal sore throat are diseases which occur with unusual frequency in the native communities, especially among children. A severe problem among Alaska Natives is the mass of dental diseases. Such diseases, particularly dental caries, are especially rampant among youngsters.

### The Public Health Service Program

The attack on Alaska Native health problems has been systematic. The Division of Indian Health in the Bureau of Medical Services of the Public Health Service directs the Alaska Native Health Program through its Alaska Native Health Area Office in Anchorage and the Mount Edgecumbe Field Office. In collaboration with the PHS Arctic Health Research Center Liaison and the Division of Public Health of the Alaska State Department of Health and Welfare, seven Alaska Native health service units (geographic areas) have been delineated: Anchorage, Barrow, Bethel, Kanakanak, Kotzebue, Tanana, and Mount Edgecumbe.

The hub of Alaska Native health activities for each service unit is the PHS Alaska Native general hospital (medical centers at Anchorage and Mount Edgecumbe) where inpatient and outpatient health services are available. Supplementing these services, particularly in the larger communities where there is no other Federal health resource, are community hospitals, private clinics, physicians and dentists who provide services through contractual arrangements.

The PHS Alaska Native hospitals at Anchorage and Mount Edgecumbe, designated as medical centers because of their size, specialty services, and their tuberculosis units, serve as referral hospitals for the smaller Alaska Native hospitals. Also, on occasion, patients needing specialized services and therapy are referred to PHS hospitals other than those operated specifically for Indians and Alaska Natives.

Today the PHS Alaska Native hospitals at Anchorage and Mount Edgecumbe serve the majority of Alaska Native tuberculous patients; however, this was not always the situation. In 1954, a total of more than 600 beds were available for such patients in six of the Alaska Native hospitals. These were insufficient to meet the need reflected by 2,452 newly reported cases of tuberculosis per 100,000 population and 82 reported deaths from this disease among Alaska Natives in that year. The tremendous backlog of patients requiring hospitalization led to the use of the Indian tuberculosis hospital at Tacoma, Washington, and, in October 1954, the initiation of a large contract with four Washington State sanatoria for care of Alaska Native patients. At the 1957 peak of the tuberculosis hospitalization program, nearly 1,000 beds were occupied by Alaska Native patients. By 1959, the peak need was over due to the "crash program" - hospitalization and ambulatory chemotherapy - against tuberculosis. Accordingly, contracts with the State of Washington and the smaller hospitals in Alaska were

discontinued. The Tacoma sanatorium was closed and Alaska Native tuberculosis patient hospitalization was confined to the two large centers - Mount Edgecumbe and Anchorage. Patients today number about 200 under treatment in the medical centers, and for each 100,000 population, reported new cases of the disease have dropped 77 percent; deaths 83 percent below their 1954 levels.

Before Alaska Statehood all mental patients (Natives as well as other residents) of the Territory were hospitalized principally at the Morningside Hospital in Portland, Oregon, arranged through a contract with the Office of Territories in the Department of the Interior. This arrangement continues with the State. Public Law 85-580 (enacted August 1, 1958) authorized the use of Federal funds for the construction of a mental hospital for the State of Alaska. This 225-bed facility (Alaska Psychiatric Institute) is located at Anchorage. Since its opening in 1962 it has served Alaska residents in need of its services.

In accordance with an agreement with the Fish and Wildlife Service in the Department of the Interior, the PHS is responsible for providing health services and operating the two small hospitals on St. Paul and St. George Islands in the Pribilof group. These Fish and Wildlife Service hospitals provide the only medical resources for the Aleuts employed in the sealing industry in the vicinity.

#### Hospital and Health Center Services

Under the administrative and program direction of the Anchorage Area Office, the Division operates 7 hospitals - the two large medical centers, each of which has a tuberculosis unit, and 5 general field hospitals. Altogether about 900 beds are available, some 300 of which are designated for tuberculous patients. The daily patient census averages between 625 and 650, with seasonal variations. During the recent years of increasing activity, admissions have exceeded 7,500 annually and more than 800 births have been recorded in the hospitals in a year. Each of the hospitals has an active outpatient service. Between 66,000 and 68,000 visits for therapeutic and preventive medical services have been recorded annually.

The 400-bed Anchorage Medical Center, organized with the major medical and surgical specialties, X-ray and laboratory services, serves as the specialty referral hospital for the interior hospitals and their satellite clinics. Consultative services are available to the field facilities. Outside consultants in many specialties hold special clinics at Anchorage as well as at the peripheral facilities (orthopedics, cardiac, ear, nose, throat, and eye, and tuberculosis follow-up). In support of a broader maternal and child health program, a pediatrician and a maternal-child health nursing consultant, assigned to the hospital, cover outlying facilities and have been instrumental in elevating the standards of pediatric care for Alaska Native children.

The Area's pharmacy program is centered at the Anchorage Hospital. This central pharmacy serves as the distribution point for all Alaska Native health installations, except Mount Edgecumbe, and prepackages drug orders for various contract facilities and satellite field units.

Satellite to the hospitals are several field health facilities: Juneau Health Center; boarding school health centers at Mount Edgecumbe and Wrangell; and smaller facilities, such as those at Ft. Yukon, Ketchikan, and Nome. Preventive health services are available at most of these facilities. These include public health nursing, dental care, school health, maternal and child health, special ear, nose, and throat clinics, and chemotherapy. In January 1960, a field program was initiated to bring urgently needed health services to village populations who could not reach health facilities and some of whom had not had benefit of any medical attendance until the activity was organized. Itinerant medical teams from the hospitals held over 175 clinics in almost 100 villages during 1962. A total of nearly 15,000 visits were recorded. Distances from the PHS hospitals to the villages in many instances range from 200 to 300 miles.

Dental services are provided through dental clinics located in each of the Service hospitals and at Nome, Ft. Yukon, Juneau, Ketchikan, and the Pribilof Island hospitals. Services are also provided in isolated villages by itinerant dental teams. In 1962, 11,000 patients were examined. They made in excess of 25,000 visits to the Division's dentists. In addition, a small number of individuals were treated by private dentists under contract. The Public Health Service Central Dental Laboratory, serving all Alaska Native health facilities, is located at Mount Edgecumbe.

#### Other Field Health Services and Activities

Many of the field health preventive activities are conducted by staff of the Alaska Division of Public Health (State Department of Health and Welfare) arranged through a contract with the Public Health Service. These field health services encompass public health nursing, Native village sanitarian aide services, tuberculosis case finding (involving air-borne X-ray units), and chemotherapy; and special eye, ear, nose, and throat services. Twenty-three public health nurses are assigned to three geographical areas (southeastern, southcentral, and northern) to provide health services at more than 200 villages.

Also through arrangement with the PHS Arctic Health Research Center, the Division supports special studies in chemotherapy, epidemiology, maternal and infant care, nutrition, and environmental sanitation both at Anchorage and at the village level. Among major special studies are the chemoprophylaxis study (tuberculosis) conducted in the Bethel area and completed in 1959, and the infant morbidity and mortality study, underway among 27 villages of the Bethel service unit.

Another significant special service has been the development of coordinated nutrition education activities with the Alaska Division of Health and the Bureau of Indian Affairs. A special project of the nutrition staff in 1961 was the cooperative planning with the BIA of nutritionally adequate menus for the school health program in the BIA day schools, accompanied by annual market orders which will provide the foods needed. This past year also saw the preparation of a manual for teachers on nutrition education, cooperatively with and at the request of the BIA office in Juneau.

## Sanitation Facilities Construction in Alaska Native Villages

Public Law 86-121, the Indian Sanitation Facilities Act, authorized the Surgeon General of the U. S. Public Health Service to assist Indians, including Alaska Native communities, in the provision of water supply, waste disposal, and other sanitation facilities.

The program is administered so as to obtain maximum participation from the beneficiary groups in the provision of essential facilities. Training in maintenance and care of facilities is stressed, and upon completion of each project, facilities are transferred to the beneficiaries for operation and maintenance. In Alaska, the program is conducted through the Alaska Native Health Area Office in Anchorage.

Projects undertaken in Alaska (1960 - 1962) include water exploration work in Native villages; community water supply development with household water storage and waste disposal facilities in 10 Native villages; rehabilitation of an existing community water supply and distribution system and sewerage facilities in one large Indian community; emergency sanitation construction work in two Native communities; development of refuse collection and disposal facilities in four of the larger Native communities; and initiation of engineering planning studies for sanitation facilities construction or rehabilitation in four large Native communities.

A Native population of 4,600 Eskimos and Indians will benefit from the facilities provided or now under construction.

## Training of Alaska Native Health Workers

Training of young Alaska Native men and women to help meet the needs of their people is conducted in many health fields. A dental assistant training program is operated by the Division of Indian Health, in cooperation with the Bureau of Indian Affairs, at Mt. Edgecumbe. Each year six to eight girls enrolled at the boarding school are selected for this training course. Upon successful completion of the course, practically all have been employed in the DIH program. Until recently, the PHS operated a school for the training of practical nurses at Mt. Edgecumbe. At present, under Bureau of Indian Affairs vocational training program, arrangements have been made for their training in the Anchorage Methodist University, with provisions for clinical experience at the Alaska Native Hospital, Anchorage, as well as at large community and military hospitals. Under contractual arrangements with the Alaska Division of Public Health, Alaska Natives are given basic training in elementary sanitation and are assigned to Native villages to improve sanitary practices and conditions. Refresher courses for these aides are also conducted under the contract with the Alaska Division of Public Health, in cooperation with the University of Alaska.

## Area Office Specialty Services

Under the direction of the Area Medical Officer in Charge at Anchorage, the program staff of the Alaska Native Health Area Office provides consultant services and program guidance to hospital and field health staffs in the following specialties: medical, dental, public health and clinical nursing, maternal and child health, pharmacy, medical social service, nutrition and dietetics, medical records, and environmental sanitation (including responsibility for sanitation facilities construction projects). These staff specialists are supported by a management group. Area Office consultants maintain liaison with the Bureau of Indian Affairs (particularly its welfare, education, and construction and maintenance staffs), the Arctic Health Research Center, and other Federal agencies; the staffs of Alaska Division of Public Health and other State agencies concerned with welfare, health, and education programs, and with other official agencies and private organizations. The Area Medical Officer in Charge and staff have primary responsibility for negotiating the contract for health services provided by the Alaska Division of Public Health, and for maintaining direct contact with staff of the Arctic Health Research Center in the conduct of special studies, training, and research.

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Since the transfer of responsibility for the Indian health program to the Public Health Service, the funds available for operating activities in Alaska have nearly doubled on an annual basis from approximately \$6.9 million in 1955 to about \$12 million allocated for the current year.

In the last five years, nearly \$6 million have been authorized for the construction and improvement of health facilities, reflecting the active health facility construction and plant modernization program of the Division of Indian Health. The new 50-bed Kotzebue Hospital has been completed and was put into operation during October 1961. Numerous staff quarters have been constructed, and plant improvements of many types have been made. Several sanitation facility construction projects are currently underway and plans are well along for construction of a replacement field hospital at Barrow. A field health station is programmed for Gambell on St. Lawrence Island - a start in the comprehensive program of establishing treatment centers in communities not in ready access to a hospital.

Under P. L. 85-151 authority, the Division provided financial assistance for the construction of beds at the Ketchikan general hospital, in Ketchikan for joint community-Alaska Native use.

Although PHS staff assigned to the Alaska Native Health Program has increased in small numbers since the transfer, a realignment in organization of staff has occurred. Additional specialists and supporting staff were added to provide services at the hospital facilities and itinerant field teams have been organized. A clinical social worker was added to the Kotzebue Hospital in 1962. A social worker was stationed at Fairbanks in January 1963 to provide medical social services to the Tanana and Barrow service units, as well as to assist with special referrals from Kotzebue. The first full-time field

nutritionist will be added in the spring of 1963. For the outside-of-hospital activities, there have been increases mainly in dental staff and more recently sanitation services staff, coordinated with supporting services provided by the Arctic Health Research Center and the State of Alaska Division of Public Health under contract.

A major goal of the Public Health Service is to help the Indians, Eskimos, and Aleuts toward a health level comparable to that of the general population. In order to do this, the available Federal, State, and local resources, as well as private resources, are being brought to bear on the problems of Alaska Native health. The consultative advice of these people is obtained, too, in order to bring their experience and knowledge of local situations in relation to their own problems. In many instances, these problems are complex, since so many Alaska Natives live in isolated, difficult settings and have ways of life which differ from that of the majority of the people in Alaska.

The Alaska Native people themselves are cooperating in special programs at the village level by serving as aides in many activities - notably the chemotherapy program and more recently through participation in the conduct of "house to house" surveys and home sanitation projects.

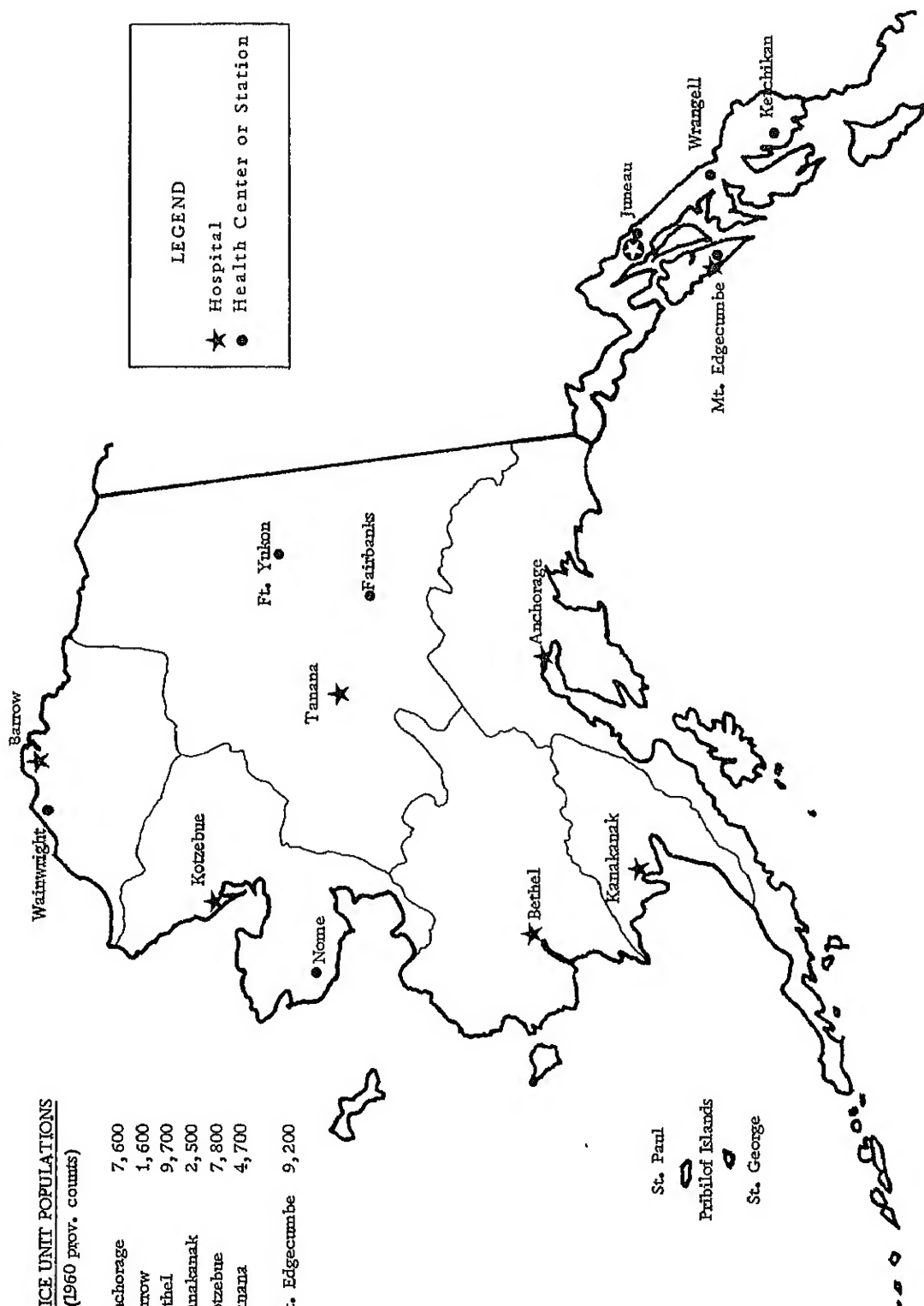
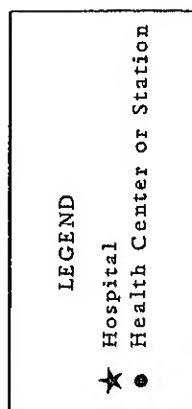
There are great needs yet to be met and gaps to be reduced, against great odds. Developments in the future for the benefit of the Alaska Native people will depend on additional personnel and facilities for service, education, and research, integrated with coordinated planning and joint effort.



# ALASKA NATIVE HEALTH SERVICE UNITS

## SERVICE UNIT POPULATIONS (1960 prov. counts)

Anchorage	7,600
Barrow	1,600
Bethel	9,700
Kanakanak	2,500
Kotzebue	7,800
Tanana	4,700
Mt. Edgecumbe	9,200



Division of Indian Health Service Units in Alaska  
Location, Population and Selected Geographic Features

Service Unit	Geographic Location	Square Miles*	Election Districts	Alaska Natives		Selected Larger Cities, Villages, and Communities
				1960 Census Prov. Pop. Counts*	Ethnic Composition	
Anchorage	Southern	99,800	7-14	7,600	25 percent Indian, 75 percent Eskimo and Aleut	Anchorage, Spenard, Kodiak, Seward, Cordova
Barrow	Northern	58,500	21	1,600	Almost all are Eskimo	Barrow, Wainwright
Bethel	West-South Central	98,100	16,17,24	9,700	10 percent Indian, 90 percent Eskimo & Aleut (mostly Esk.)	Bethel, Kwigillingok, Nunapitchuk, Chevak
Kanakanak	Southwest	39,200	15	2,500	10 percent Indian, 90 percent Eskimo & Aleut (mostly Esk.)	Dillingham, Naknek, Togiak
Kotzebue	Northwest	68,500	22,23	7,800	Almost all are Eskimo	Nome, Kotzebue, Unalakleet, Noorvik, Gambell, Point Hope
Tanana	Central	184,700	18-20	4,700	80 percent Indian, most of remainder are Eskimo	Fairbanks, Ft. Yukon, Tanana
Mount Edgecumbe	Southeast	37,600	1-6	9,200	Vast majority are Indian	Ketchikan, Juneau, Sitka, Mount Edgecumbe, Petersburg, Wrangell, Douglas

\*Rounded

## ANCHORAGE SERVICE UNIT

Location: Located in southern part of State. 99,799 square miles comprising Election Districts 7 through 14.

Population (1960 Census):

Total residents - all races . . . . .	114,882
Total Alaska Natives . . . . .	7,634
Eskimos and Aleuts. . . . .	5,914 (prov.)
Indians. . . . .	1,720

Heaviest Alaska Native population concentrations are in the Aleutian Islands, Anchorage, and Kodiak Election Districts (14, 10, 13).

Principal Settlements (1960 Census populations): Anchorage (44,237 - largest city in the State); Spenard (9,074); Kodiak (2,628); Seward (1,891); Nunaka Valley (1,442); Homer (1,247); Palmer (1,181); and Cordova (1,128).

## HEALTH RESOURCES

Hospitals: PHS Hospital at Anchorage, a medical center which serves primarily Alaska Natives living in the Anchorage Service Unit. Patients from other Service Units in Alaska are referred to this hospital for specialized care, both general and tuberculosis. It is staffed to provide the major specialty services.

395 beds available: 265 general and 130 tuberculosis.

Fiscal year 1962 workload:	<u>Total</u>	<u>General</u>	<u>TB</u>
Admissions (excluding births)	2,188	1,924	264
Births	192	-	-
Average daily patient census	345	193	152
Outpatient visits	12,733	-	-

Patients are flown from all health service units to the Anchorage Medical Center for referral services.

Itinerant Medical Teams held clinics in the following villages: Chignik, King Cove, Port Heiden, Pedro Bay, Kokhanok, Igiugig, English Bay, Port Graham, Unalaska, Chignik Lagoon. Visits totaled over 1,400.

Dental: In fiscal year 1962, 1,093 patients received treatment. Consultant services through local dentists, also Elmendorf Air Force Base and Ft. Richardson Army Base.

## ANCHORAGE SERVICE UNIT (Continued)

Public Health Nursing: Services through contract with the Alaska State Department of Health and Welfare (Division of Public Health).

Contract Hospital Services: Services at community hospitals in Cordova, Kodiak, Seward, Fairbanks, Palmer, Glenallen, Valdez, and Seldovia.

Environmental Sanitation: PHS program for all of Native Alaska administered from Area Office in Anchorage. Sanitation Facilities Construction project underway at Tyonek (Fiscal Year 1961). General sanitation services limited to itinerant visits from Regional Sanitarian of Alaska Division of Public Health at Anchorage.

## BARROW SERVICE UNIT

Location: Situated in northern part of State. 58,518 square miles comprising Election District 21.

Population (1960 Census):

Total, including Alaska Natives . . . . . 2,133  
Alaska Natives (almost entirely Aleuts and Eskimos) 1,604 (prov.)

Principal Settlements (1960 Census populations): Barrow (1,314);  
Wainwright (253), and Barter Island.

### HEALTH RESOURCES

Hospitals: PHS Alaska Native Hospital at Barrow: 15 beds available.

Fiscal year 1962 workload:

495 admissions and 82 births;  
8 average daily inpatient census (excluding newborn);  
10,846 outpatient visits.

Patients requiring specialized care are referred to the PHS Alaska Native Hospital, Anchorage. They are flown a distance of some 720 miles to that facility.

Itinerant Medical Team: Holds clinics periodically. Villages covered in fiscal year 1962 were Wainwright and Barter Island. Visits totaled 265.

Dental: In fiscal year 1962, 577 patients were treated and the itinerant dental team visited villages of Wainwright and Barter Island.

Public Health Nursing: Services through DIH contract with Alaska Department of Health and Welfare.

Environmental Sanitation: Sanitation Facilities Construction program conferences held with village council in Barrow Service Unit. Native Sanitarian Aide stationed at Barrow provides services to Barrow, Barter Island, and Wainwright in addition to four villages in Tanana Service Unit. Consulting engineer is developing report on water supply and waste disposal for Barrow.

Construction: A replacement 12-bed field hospital has been authorized. Planning funds were appropriated in 1961 and construction funds have been requested for 1963.

## BETHEL SERVICE UNIT

Location: Located in west-southcentral part of State. 98,116 square miles comprising Election Districts 16, 17, and 24.

Population: (1960 Census):

Total, including Alaska Natives . . . . .	10,966
Total Alaska Natives . . . . .	9,660
Eskimos and Aleuts . . . . .	8,753 (prov.)
Indians . . . . .	907

Principal Settlements (1960 Census populations): Bethel (1,258); Kiviguk (358); Kwigillingok (344); Nunapitchuk (327); Kwethluk (325); Chevak (315); Aniak (308), and Hooper Bay.

## HEALTH RESOURCES

Hospitals: PHS Alaska Native Hospital at Bethel: 65 general beds available. Water treatment facilities and other plant alterations were completed between 1956 and 1960. Major alteration project authorized to improve the overcrowded outpatient department and auxiliary facilities.

Fiscal year 1962 workload:

1,343 admissions and 277 births;  
41 average daily inpatient census (excluding newborn);  
12,057 outpatient visits.

Specialized services on a referral basis at PHS Alaska Native Hospital, Anchorage. Patients are flown some 475 miles to that facility.

Itinerant Medical Team: Holds clinics periodically. Villages covered in fiscal year 1962 were: Alakanuk, Anvik, Aniak, Cheforak, Chevak, Crooked Creek, Emangok, Holikachuk, Holy Cross, Hooper Bay, Kotlik, Kwigillingok, Kwiguk, Marshall, Mt. Village, Nigtmute, Pilot Station, Russian Mission, Shageluk, Scammon Bay, Sleetmute, Stony River, St. Mary's, Tununak, Upper and Lower Kalskag. Visits totaled over 2,750.

Dental: During fiscal year 1962, 1,009 patients were treated, and itinerant team visits made to Holikachuk, Hooper Bay, Quinhagak, Eek, and Holy Cross. Contract dentist (6 months of 1961) visited St. Mary's, Marshall, Pilot Station, Mountain Village, Red Devil, Pilot Point, and Sleetmute.

## BETHEL SERVICE UNIT (Continued)

Public Health Nursing: Services through DIH contract with Alaska Department of Health and Welfare.

Environmental Sanitation: Sanitation Facilities Construction projects underway in Akiachak, Napaskiak, Napakiak, Tuntatuliak, Oscarville, and Tuluksak (Fiscal Years 1961 - 1962). Native Sanitarian Aide (and supervisor) services on an itinerant basis provided at Scammon Bay, Alakanuk, Kwiguk, Mt. Village, Tanunak, Mekoryuk, Nigtmute, Cheforak, Kipnuk, and Kwigillingok by staff stationed at Bethel, Chevak, and Hooper Bay.

### SPECIAL STUDIES

Infant morbidity and mortality study covering 27 villages in the area was initiated in October 1960, under staff direction of PHS Arctic Health Research Center, Anchorage.

Five villages in Bethel area included in Native nutrition and food composition study covering 13 villages, initiated in 1957 under DIH-AHRC agreement. (Others are 6 in Kotzebue area and 2 in Tanana.)

Tuberculosis chemoprophylaxis study in progress.

## KANAKANAK SERVICE UNIT

Location: Located in southwestern part of State. 39,186 square miles comprising Election District 15.

Population (1960 Census):

Total, including Alaska Natives . . . . .	4,024
Total Alaska Natives . . . . .	2,534
Eskimos and Aleuts . . . . .	2,301 (prov.)
Indians . . . . .	233

Principal Settlements (1960 Census populations): Dillingham (424); Naknek (249); King Salmon (227); Togiak (220).

### HEALTH RESOURCES

Hospitals: PHS Alaska Native Hospital at Kanakanak: 38 general beds available.

Fiscal year 1962 workload:

724 admissions and 108 births in hospital;  
17 average daily inpatient census (excluding newborn);  
4,514 outpatient visits.

Need for specialized care met through referral of patients to PHS Alaska Native Hospital at Anchorage, 360 miles away.

Itinerant Medical Team: Holds clinics periodically. Villages covered in 1962 were: Ekwak, Goodnews Bay, Koliganek, Manokotak, New Stuyahok, Pilot Point, Port Moller, and Togiak. Total visits were about 1,400.

Dental: In fiscal year 1962, 650 patients were treated and the itinerant dental team visited Clark's Point, Ekna, Togiak, Manokotak, New Stuyahok, Ekwak, and Koliganek.

Public Health Nursing: Services through DIH contract with Alaska Department of Health and Welfare.

Environmental Sanitation: General services limited to itinerant visits from Regional Sanitarian of Alaska Division of Public Health at Anchorage.

## KOTZEBUE SERVICE UNIT

Location: Situated in northwestern part of State. 68,546 square miles comprising Election Districts 22 and 23.

Population (1960 Census):

Total, including Alaska Natives . . . . . 9,651  
Alaska Natives (almost entirely Aleuts and Eskimos) . . . 7,769 (prov.)

Principal Settlements (1960 Census populations): Nome (2,316);  
Kotzebue (1,290); Unalakleet (574); Gambell (358); Noorvik (384);  
Point Hope (324).

### HEALTH RESOURCES

Hospitals: PHS Alaska Native Hospital at Kotzebue. This modern 50-bed facility opened September 1961, replacing obsolete, inadequate structure.

In fiscal year 1962 there were 54 general beds available.

Workload in 1962:

810 admissions and 24 births;  
32 average daily inpatient census (excluding newborn);  
12,197 outpatient visits.

Specialized care is available on a referral basis at the PHS Alaska Native Hospital, Anchorage. Patients are flown a distance of about 712 miles to that facility.

Itinerant Medical Team: Holds clinics periodically. Villages covered in fiscal year 1962 were: St. Michael, Shaktolik, Stebbins, Unalakleet, Koyuk, Point Hope, Kivalina, Buckland, Kiana, Kobuk, Shungnak, Noatak, Teller, Selawik, Elim, White Mountain, Golovin, Savoonga, Gambell, Deering, and Little Diomedé. Visits totaled about 3,900.

Dental: During fiscal year 1962, 1,338 patients were treated and the itinerant dental team visited Noorvik, Kiana, Shungnak, Noatak, Selawik, Buckland, and Point Hope. All of these villages paid the cost of transportation for the dental team, their supplies and equipment.

The dental team stationed at Nome during fiscal year 1962 treated 892 patients and visited Unalakleet, White Mountain, Golovin, Teller, Teller Mission, and Wales. All of these villages paid for transportation and equipment of team.

## KOTZEBUE SERVICE UNIT (Continued)

Public Health Nursing: Services through DIH contract with Alaska Department of Health and Welfare.

Environmental Sanitation: Sanitation Facilities Construction project limited to development of refuse collection and disposal system for Kotzebue (Fiscal Year 1962). Native Sanitarian Aide (and supervisor) services on an itinerant basis provided at Noatak, Noorvik, Kiana, Shungnak, Buckland, Candle, Selawik, Kivalina, Little Diomed, Unalakleet, Wales, Stebbins, Shishmaref, St. Michael, Teller, White Mountain, Elim, Gambell, and Northeast Cape by staff stationed at Kotzebue, Ambler, Pt. Hope, Nome, Shaktolik, Koyuk, and Savoonga.

### SPECIAL STUDY

Six villages in Kotzebue area included in special nutrition study (see Bethel Service Unit).

## TANANA SERVICE UNIT

Location: Located in central part of State. 184,669 square miles comprising Election Districts 18 through 20.

Population (1960 Census):

Total, including Alaska Natives . . . . .	49,108
Total Alaska Natives . . . . .	4,638
Indians . . . . .	3,684 (prov.)
Eskimos and Aleuts . . . . .	954

Principal Settlements (1960 Census populations): Fairbanks (13,311); Graehl-Hamilton Acres (2,162); College (1,755); Lemeta-Johnston (1,227); Fort Yukon (701); Island (659); North Pole (615); Tanana (349).

### HEALTH RESOURCES

Hospitals: PHS Alaska Native Hospital at Tanana: 32 general beds available.

Fiscal Year 1962 workload:

917 admissions and 96 births;  
26 average daily inpatient census (excluding newborn);  
3,862 outpatient visits.

Specialized care is available on a referral basis at the PHS Alaska Native Hospital, Anchorage. Patients are flown about 300 miles to that facility.

Health Center at Ft. Yukon; health office at Fairbanks.

Itinerant Medical Team: Holds clinics periodically. Villages covered in fiscal year 1962 were: Fort Yukon, Nulato, Dot Lake, Tanacross, Mentasta, Kaltag, Koyukuk, Northway, Tetlin, Hughes, Allakaket, Galena, Beaver, Ruby, Anaktuvuk Pass, Arctic Village, Huslia, Minto, Manley Hot Springs, Chalkyitsik, Circle, Eagle, Nenana, Venetie, and Rampart. Visits totaled about 4,100.

Dental: Permanent duty station for dental team in Ft. Yukon with clinics established at Ft. Yukon and Tanana PHS Hospital. In fiscal year 1962, 854 patients were treated and itinerant visits made to Nulato, Allakaket, Koyukuk, and Hughes. Emergency care available, under contract, at Fairbanks.

Public Health Nursing: Services through DIH contract with Alaska Department of Health and Welfare.

Environmental Sanitation: Sanitation Facilities Construction projects are underway in Allakaket, Huslia, and Minto (Fiscal Year 1962). Native Sanitarian Aide stationed at Ft. Yukon provides services to Ft. Yukon, Beaver, Arctic Village, Stevens Village, Minto, Tanana, and Venetie. Aide at Barrow covers Anaktuvuk Pass, Bettles, Allakaket, and Huslia.

## MOUNT EDGECUMBE SERVICE UNIT

Location: Located in the mountainous southeastern part of the State in that portion known as the "Panhandle." Its 37,566 square miles comprise Election Districts 1 through 6 and consist of numerous islands and a narrow belt of adjacent mainland. Bounded on the east by the Canadian Province of British Columbia and on the north by the southern-most tip of the Yukon Territory.

### Population (1960 Census):

Total residents, all races . . . . .	35,403
Total Alaska Natives . . . . .	9,242
Indians . . . . .	7,887
Eskimos and Aleuts . . . . .	1,355 (prov.)

Principal Settlements (1960 Census populations): Juneau (6,797); Ketchikan (6,483); Sitka (3,237); Mt. Edgecumbe (1,884); Petersburg (1,502); Wrangell (1,315); Douglas (1,042).

## HEALTH RESOURCES

PHS Alaska Native Hospital at Mount Edgecumbe.  
300 beds available: 125 general and 175 tuberculosis.\*

Fiscal year 1962 workload:	<u>Total</u>	<u>General</u>	<u>TB</u>
Admissions (excluding births)	1,188	1,087	101
Births	80	-	-
ADPL	156	102	54
Outpatient Visits	11,460	-	-

\*Many of these beds are not actively used.

During 1962, a change in policy involved greater use of Anchorage for selected tuberculosis patients; also, mass X-ray of population in this area and more intensive case-finding and follow-up, resulted in increased activity.

The Mt. Edgecumbe Hospital serves the large BIA Boarding School with an enrollment of more than 650 academic and vocational students. A school health center is operated by the Public Health Service. In fiscal year 1962, 2,600 visits to physicians were recorded; more than 5,900 visits to nurses and over 3,000 dental visits.

## MOUNT EDGECUMBE SERVICE UNIT (Continued)

PHS Alaska Native Health Center at Juneau. This facility is physically located in St. Ann's Hospital, where inpatient services are available through a contract arrangement. Outpatient clinic services are provided by PHS physician. In 1962, 7,665 visits were recorded. Dental services also available.

School Health Center at Wrangell for about 260 BIA Boarding School (elementary) students.

Field clinics are conducted in area periodically at Yakutat, Hoonah, Angoon, Kake, Craig, Klawock, Metlakatla, and Hydaburg. Total visits in 1962 about 1,100.

Contract physicians and hospital services are provided for beneficiaries in Juneau, Ketchikan, Petersburg, and Wrangell.

In conjunction with State programs, special clinics are held in the Area: crippled children's, EENT, mental health, and tuberculosis.

Public Health Nursing: Services at satellite field locations are provided in accordance with arrangements under the Alaska Division of Public Health contract.

Dental: In fiscal year 1962, 2,322 patients received treatment. Dental laboratory located here provides area-wide laboratory services.

Dental team at Ketchikan serves the villages of Hydaburg, Metlakatla, Craig, and Klawock; also one visit to Wrangell, on itinerant basis. In 1962, altogether 1,110 patients were treated.

Contract dental services provided at Haines.

Environmental Sanitation: Sanitation Facilities Construction projects are underway in Metlakatla, Hoonah, Yakutat (Fiscal Year 1962). Sanitarian Aide services are provided by the Alaska Division of Public Health at Angoon, Craig, Hydaburg, Kake, Klawock, Metlakatla, and Saxman (State funds).

## PRIBILOF ISLANDS

Location: Saint Paul Island (35 square miles) and, 40 miles to the south, Saint George Island (27 square miles), are part of the Pribilofs in the Bering Sea, some 850 miles southwest of Anchorage.

Population: (estimated)

Saint Paul : 350 Natives, 30 non-Natives

Saint George: 200 Natives, 10 non-Natives

### HEALTH RESOURCES

In accordance with an agreement with the Fish and Wildlife Service in the Department of the Interior, the Public Health Service is responsible for operating two small hospitals (with a total of 14 beds) on St. Paul and St. George Islands. The Fish and Wildlife Service has jurisdiction over and is responsible for the operation and maintenance of the facilities. They provide the only medical and dental resources for the Aleuts employed by the sealing industry.

During fiscal year 1962, hospital admissions, excluding newborn, totaled 72 and a total of about 200 hospital days were recorded; 14 births were reported. The greater activity is in the outpatient services; about 6,500 outpatient visits were reported for 1962.

In fiscal year 1962, 277 dental treatments were provided.

### SPECIAL PROBLEMS

Both islands are of volcanic origin. The shore lines are rugged and precipitous, being either sheer cliffs or narrow beaches covered with large boulders. St. Paul has a few sand beaches but there are none on St. George. Consequently, all ships must remain some distance from shore. Freight and passengers are landed by lighters or large-covered Native boats.

There is a regular weekly scheduled flight from Anchorage to St. Paul, but, due to the rugged terrain, there is no air strip on St. George. Supplies are brought to the islands by a Fish and Wildlife Service ship which makes five trips from Seattle between February and November. Mail is dropped at St. George Island by plane once a week.

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The statistical summaries contained in the following set of tables are derived from standard workload reports which are completed by the facilities and forwarded through the Anchorage Area Office to Headquarters. These forms are:

- PHS-2726 - Hospital inpatient services
- PHS-2727 - Outpatient clinic services (excluding dental)
- PHS-2737 - Boarding school health centers
- PHS-2506-4 - Dental Forms
- PHS-2515-2 - Discharge summary

PHS Alaska Native Health Facilities  
Statistical Summary, Fiscal Year 1962

	INPATIENT				OUTPATIENT VISITS			
	Beds available 6/30/62	Admis- sions	Average daily patient load	Births	Hospital clinics	Village Clinics		
						Number of villages visited	Number of clinics held	
<u>HOSPITALS</u>								
<u>Total</u>	899	7,665	625	859	67,669	104	205	14,767
GM&S	594	7,300	419					
TB	305	365	206					
<u>Anchorage Medical Center</u>								
GM&S	265	1,924	193	192	12,733	12	18	1,277
TB	130	264	152					
Barrow	15	495	8	82	10,846	2	5	265
Bethel	65	1,343	41	277	12,057	27	41	2,750
Kanakanak	38	724	17	108	4,514	11	27	1,302
Kotzebue	54	810	32	24	12,197	19	30	3,890
Tanana	32	917	26	96	3,862	25	72	4,184
<u>Mt. Edgecumbe Med. Center</u>								
GM&S	125	1,087	102	80	11,460	8	12	1,099
TB	175	101	54					

HEALTH CENTERS

Average enrollment Visits to physician. Visits to nurse Visits to dentist Immunizations: Completed Boosters Mass Surveys: X-ray Audiometric	<u>BIA Boarding Schools</u>		<u>St. Ann's Hospital, Juneau*</u>	
	<u>Mt. Edgecumbe</u>	<u>Wrangell</u>	Visits to facility	7,665
	662	257	Immunizations: Completed	622
	2,600	77	Boosters	364
Completed Boosters Mass Surveys: X-ray Audiometric	5,918	24,350	* DHE full-time staff in outpatient clinic; emergency service and inpatient care provided through contract arrangement.	
	3,028	297		
	1,553	401		
	470	165		
Mass Surveys: X-ray Audiometric	1,579	639		
	84	314		

PHS Alaska Native Hospitals  
Discharges and Hospital Days by Age, Fiscal Year 1962

	Small General Hospitals					Anchorage	Mount Edgecumbe
	Total	Barrow	Bethel	Kanakanak	Kotzebue		
Total, excl. newborn	3,439	383	1,306	537	604	1,993	1,246
Under 1 year	469	90	158	73	79	124	65
1 - 4	542	98	125	114	128	163	99
5 - 9	281	20	119	37	60	162	87
10 - 14	189	12	94	18	38	134	94
15 - 19	233	15	109	30	38	189	298
20 - 24	298	36	117	54	38	196	125
25 - 34	617	57	282	90	66	387	148
35 - 44	346	28	145	56	53	237	103
45 - 54	198	15	70	27	43	168	89
55 - 64	107	6	40	19	15	104	66
65 - 74	88	4	32	8	29	80	49
75 and over	67	2	15	9	17	46	23
Unspecified	4	-	-	2	-	3	-
<u>Hospital Days</u>							
Total, excl. newborn	41,948	2,800	15,911	5,415	9,176	110,273	92,065
Under 1 year	8,750	994	3,796	1,182	1,618	5,198	1,576
1 - 4	6,529	744	1,506	1,209	2,115	8,296	5,861
5 - 9	3,934	124	1,647	378	1,153	9,878	7,677
10 - 14	2,632	84	1,037	340	766	9,003	6,094
15 - 19	2,496	64	1,197	225	412	8,472	13,527
20 - 24	2,531	123	821	302	511	11,329	8,729
25 - 34	5,857	288	2,560	617	690	18,948	13,944
35 - 44	3,160	117	1,169	420	547	10,872	9,639
45 - 54	2,201	89	981	217	416	11,819	11,351
55 - 64	1,242	44	498	205	207	6,339	5,397
65 - 74	1,382	69	536	165	392	6,571	5,615
75 and over	1,207	60	163	143	349	3,442	2,655
Unspecified	27	-	-	12	-	106	-

Source: Tabulations of inpatient records (PHS-2515-2).

Alaska Native General Hospitals  
Discharges of Pediatric Patients 1/  
Fiscal Years 1960-1962

Diagnosis	Number of Discharges			Percentage Distribution		
	FY 1962	FY 1961	FY 1960	FY 1962	FY 1961	FY 1960
All Ages	<u>7,499</u>	<u>6,678</u>	<u>7,051</u>			
Percent: Total under 15 of all ages	42%	36%	38%			
Under 15 years of age by diagnosis	<u>3,172</u>	<u>2,409</u>	<u>2,703</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Tuberculosis	132	106	98	4.2	4.4	3.6
Dysentery	8	17	-	0.3	0.7	-
Other infective & parasitic diseases	191	95	136	6.0	3.9	5.0
Diabetes mellitus	-	-	-	-	-	-
Other endocrine diseases	20	15	30	0.6	0.6	1.1
Otitis media, mastoiditis	165	224	362	5.2	9.3	13.4
Other nervous system & sense organs	158	98	121	5.0	4.1	4.5
Heart	17	13	20	0.5	0.5	0.7
Rheumatic fever	34	25	15	1.1	1.0	0.6
Other circulatory diseases	16	3	11	0.5	0.1	0.4
Upper respiratory	103	155	117	3.2	6.4	4.3
Influenza and pneumonia	493	469	435	15.5	19.5	16.2
Other respiratory diseases	779	282	406	24.7	11.7	15.0
Gastroenteritis, colitis	101	121	48	3.2	5.0	1.8
Other digestive system diseases	103	88	86	3.2	3.7	3.2
Skin diseases	108	79	106	3.4	3.3	3.9
Congenital malformations	39	65	79	1.2	2.7	2.9
Diseases of early infancy	57	52	39	1.8	2.2	1.4
Accidents	<u>231</u>	<u>179</u>	<u>179</u>	<u>7.3</u>	<u>7.4</u>	<u>6.6</u>
Fractures	60	51	50	1.9	2.1	1.8
Dislocations, sprains, strains	6	6	2	0.2	0.2	0.1
Head injuries	13	7	12	0.4	0.3	0.4
Lacerations, open wound	63	42	49	2.0	1.7	1.7
Superficial injuries, contusions	20	23	15	0.6	1.0	0.6
Burns	30	23	18	0.9	1.0	0.7
Poisonings	15	17	18	0.5	0.7	0.7
Other	24	10	15	0.8	0.4	0.6
All other conditions	417	323	415	13.1	13.5	15.4

1/ Under 15 years of age. Includes TB patients in medical centers.  
Source: Tabulations of inpatient records (PHS-2515-2).

## Dental Services for Alaska Natives, Fiscal Year 1962

Dental services are provided in clinics at each of the Alaska Native hospitals, the health centers, Ketchikan, and the Pribilof Islands. Dental teams reach isolated villages on an itinerant basis. A small number of beneficiaries are also provided services by private dentists under contract.

The Alaska Native Health Program dental staff comprises 15 dental officers, 15 dental assistants, and 2 dental laboratory technicians.

### Alaska Native Beneficiary Population - Estimated Age Distribution (1960)

	<u>Number</u>	<u>Percent of Total</u>
Total	<u>43,000</u>	<u>100.0</u>
Under 6 years	9,500	22.0
6 - 14 (total)	<u>10,900</u>	<u>25.5</u>
6 - 8	<u>4,100</u>	<u>9.6</u>
9 - 11	3,600	8.3
12 - 14	3,200	7.6
15 - 17	2,600	6.0
18 years and over	20,000	46.5

In 1962 of the 11,000 patients examined, about 33 percent received complete dental care.

### Epidemiological Data by Age (Through Age 17) Average Per Person, Fiscal Year 1962

	<u>Under 6</u>	<u>6 - 8</u> <u>Years</u>	<u>9-11</u> <u>Years</u>	<u>12-14</u> <u>Years</u>	<u>15-17</u> <u>Years</u>	<u>Mean</u>
Number examined	868	1,606	1,617	1,443	1,236	-
Decayed teeth	.3	2.3	4.3	7.5	6.9	4.3
Extraction indicated	0.0	.2	.4	.8	.9	.5
Missing	0.0	.1	.5	1.4	2.9	1.0
Filled	0.0	.5	1.7	3.8	5.9	2.4
Total DMEF	.3	3.1	6.9	13.5	16.6	8.2

### Services Provided by DIH Clinicians - Fiscal Year 1962

Number examined and treated	10,382
Services required	76,665
Services provided	46,843
Provided - percent of required	61.1

Number receiving complete dental care	<u>3,634</u>
Under 18 years	<u>2,784</u>
18 years and over	850

Alaska Native Village Program  
Villages Visited by Itinerant Medical Teams  
Fiscal Years 1961-1962

ANCHORAGE

Afognak  
Alitak  
Atka  
Belkofski  
Chignik  
Chignik Lagoon  
Chignik Lake  
English Bay  
Igiugig  
Kaguyak  
Karluk  
King Cove  
Kokhanok  
Larsen Bay  
Nelson Lagoon  
Nikolski  
Old Harbor  
Ouzinkie  
Perryville  
Port Graham  
Port Heiden  
Unalaska

BARROW

Barter Island  
Wainwright

BETHEL

Alakanuk  
Aniak  
Anvik  
Chaneliak  
Chefornak  
Chevak  
Crooked Creek  
Eek  
Emangok  
Holikachuk  
Holy Cross  
Hooper Bay  
Kipnuk  
Kotlik  
Kwigillingok  
Kwiguk  
Marshall  
Mt. Village

BETHEL (continued)

Nightmute  
Pilot Station  
Platinum  
Quinhagak  
Russian Mission  
St. Mary's  
Scammon Bay  
Shageluk  
Sheldon's Point  
Sleetmute  
Stony River  
Tanunak  
Upper Kalskag

KANAKANAK

Egegik  
Ekwak  
Goodnews Bay  
Koliganek  
Levelock  
Manokotak  
New Stuyahok  
Nondalton  
Pedro Bay  
Pilot Point  
Port Moller  
Togiak

KOTZEBUE

Ambler  
Buckland  
Deering  
Elim  
Gambell  
Golovin  
Kiana  
Kivalina  
Kobuk  
Koyuk  
Little Diomede  
Noatak  
Noorvik  
Pt. Hope  
St. Michael  
Savoonga  
Selawik

KOTZEBUE (continued)

Shaktoolik  
Shishmaref  
Shungnak  
Stebbins  
Teller  
Teller Mission  
Unalakleet  
Wales  
White Mountain

TANANA

Allakaket  
Anaktuvak Pass  
Arctic Village  
Beaver  
Chalkyitsik  
Circle  
Dot Lake  
Eagle  
Ft. Yukon  
Galena  
Hughes  
Huslia  
Kaltag  
Koyukuk  
Manley Hot Springs  
Mentasta  
Minto  
Nenana  
Northway  
Nulato  
Rampart  
Ruby  
Stevens Village  
Tanacross  
Tetlin  
Venetie

MT. EDGE CUMBE

Angoon  
Craig  
Hoonah  
Hydaburg  
Kake  
Klawock  
Metlakatla  
Yakutat

## Villages Served by Public Health Nurses

Under the contract with the State of Alaska, Division of Health, in fiscal year 1961, 23 public health nurses were assigned to service Alaska Native villages numbering more than 200. These are listed below by the geographical area served. (The village headquarters of each nurse is identified.)

### SOUTHEASTERN

#### Hoonah-Yakutat

Hoonah (Hdqs.)  
Yakutat

#### Craig-Hydaburg-Klawock

Craig  
Hydaburg  
Ketchikan (Hdqs.)  
Klawock

#### Kake-Angoon

Kake (Hdqs.)  
Angoon

### SOUTHCENTRAL

#### Bethel Area I

Bethel (Hdqs.)  
Chevak  
Hooper Bay  
Kasigluk  
Napakiak  
Napaskiak  
Nunapitchuk  
Oscarville  
Scammon Bay

#### Bethel Area II

Bethel (Hdqs.)  
Chefornak  
Eek  
Goodnews Bay  
Kipnuk  
Kwigillingok  
Kwinhagek  
Mekoryuk  
Nash Harbor  
Newtok  
Nigtmute  
Platinum  
Tanunak  
Tuntatuliak

#### Bethel Area III

Akiachak  
Akiak  
Alakanuk  
Bethel (Hdqs.)  
Chaneliak  
Kotlik Area  
Kwethluk  
Kwiguk  
Marshall  
Mt. Village  
New Hamilton  
New Knockhock  
Pilot Station  
Pitkas Point  
St. Mary's  
Sheldon's Point  
Tuluksak

#### McGrath Area I

Aniak  
Crooked Creek  
Kalskag  
Lime Village  
McGrath (Hdqs.)  
Napaimiut  
Nyac  
Red Devil  
Russian Mission (Kusk)  
Sleetmute  
Stony River

Villages Served by Public Health Nurses (cont'd)

SOUTHCENTRAL (continued)

McGrath Area II

Anvik  
Flat  
Holikachuk  
Holy Cross  
McGrath (Hdqrs.)  
Medfra  
Nicolai  
Ophir  
Russian Mission (Yukon)  
Shageluk  
Takotna  
Telida

Cordova

Chenega  
Cordova (Hdqrs.)  
Ellamar  
LaTouche  
Tatitlek

Dillingham

Aleknagik  
Clark's Point  
Ekuk  
Ekwok  
Greater Dillingham Area  
Igushik  
Koliganek  
Manokutak  
New Stuyhok  
Nushagak  
Togiak

Glenallen

Chistochina  
Chitina  
Copper Center  
Copper Valley School  
Gakona  
Glenallen (Hdqrs.)  
Gulkana FAA  
Gulkana Village  
Kenny Lake  
Lower Tonsina  
Tazlina  
Valdez  
Glenn Highway Area-Chickaloon  
to Mile 180  
Mile 185 - 219

Homer

Anchor Point  
English Bay  
Homer (Hdqrs.)  
Port Graham  
Seldovia

Kenai

Clam Gulch  
Cohoe  
Cooper's Landing  
Kasilof  
Kenai (Hdqrs.)  
Ninilchik  
Soldotna  
Sterling  
Tyonek  
Tustumena

Kodiak

Afognak  
Alitak (Ahkiok)  
Anadel  
Kaguyak  
Karluk  
Kodiak (Hdqrs.)  
Larsen Bay  
Old Harbor  
Ouzinkie

Naknek

Branch River  
Egegik  
Iguigig  
Iliamna-Newhalen  
Kokhanok  
King Salmon  
Levelock  
Naknek (Hdqrs.)  
Nondalton  
Pedro Bay  
Pilot Point  
Port Alsworth  
Sevenosky Village  
South Naknek  
Ugashik

# Villages Served by Public Health Nurses (cont'd)

## NORTHERN

### Fairbanks Area I

Allakaket  
Anktuvak Pass  
Bettles  
Bettles Village  
Cantwell  
Fairbanks (Hdqrs.)  
Healy  
Hughes  
Huslia  
Manley Hot Springs  
Minto  
Nenana  
Suntrana  
Usibelli

### Fairbanks Area II

Arctic Village  
Beaver  
Circle  
Eagle  
Fairbanks (Hdqrs.)  
Fishhook (Chalkyitsik)  
Fort Yukon  
Rampart  
Stevens Village  
Venetie

### Fairbanks Area III

Big Delta  
Dot Lake  
Fairbanks (Hdqrs.)  
Mentasta Area  
North Pole  
Northway Area  
Salcha Area  
Tanacross  
Tetlin  
Tok

### Kotzebue

Ambler  
Buckland  
Candle  
Deering  
Kiana  
Kivalina  
Kobuk

### Kotzebue (continued)

Kotzebue (Hdqrs.)  
Noatak  
Noorvik  
Pt. Hope  
Selawik  
Shungnak

### Nome

Council  
Elim  
Gambell  
Golovin  
Little Diomede  
Moses Point  
Nome (Hdqrs.)  
Savoonga  
Shishmaref  
Teller  
Teller Mission  
Wales  
White Mountain

### Point Barrow

Barrow (Hdqrs.)  
Barter Island  
Meade River  
Point Lay  
Wainwright

### Tanana

Galena  
Kaltag  
Kokrines  
Koyukuk  
Nulato  
Ruby  
Tanana (Hdqrs.)

### Unalakleet

Koyuk  
St. Michael  
Shaktoolik  
Stebbins  
Unalakleet (Hdqrs.)



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The series of trend tables which follow concern vital events among Indians and Alaska Natives, generally covering the period from 1949 to 1960. The data include selected statistics and rates for births, infant deaths, leading causes of death, and specific data on tuberculosis mortality and tuberculosis incidence.

All natality and mortality data are derived from official vital statistics tabulations from the National Vital Statistics Division of the U. S. Public Health Service and represent events registered with State Health Departments in accordance with national reporting requirements. These tables have been prepared by the Division's Program Analysis and Special Studies Branch and are for the first time presented in this manner.

Births and Birth Rates  
Indian and Alaska Native, and Birth Rates, All Races  
1949 - 1960

Year	Indian 1/			24 Fed. Res. States			Alaska Native 1/			All Races	
	48 States			Births			Births			Births	
	Per 1,000			Per 1,000			Per 1,000			per 1,000	
	Number	population		Number	population		Number	population		population	
1960	20,500	40.3		19,188	42.1		1,966	45.6		23.7	
1959	19,784	39.4		18,616	41.4		1,904	45.9		24.1	
1958	18,458	37.2		17,428	39.2		1,943	48.7		24.3	
1957	17,978	36.7		16,982	38.6		1,832	47.7		25.0	
1956	16,902	34.9		16,040	36.9		1,907	51.5		24.9	
1955	16,069	34.0		15,304	36.1		1,724	49.3		24.6	
1954	15,662	34.0		15,042	36.5		1,649	47.5		24.9	
1953	14,932	33.2		14,238	35.4		1,534	44.5		24.6	
1952	14,564	33.1		13,926	35.4		1,470	42.9		24.7	
1951	13,878	32.2		13,326	34.7		1,516	44.5		24.5	
1950	13,362	31.7		12,824	34.2		1,340	39.5		23.6	
1949	12,332	29.8		11,785	32.1		1,315	39.0		23.9	

1/ Birth rates based on registered births without correction for under-registration.

NOTE: Birth data are by place of residence for Indians (excluding Alaska) and All Races, derived from National Office of Vital Statistics official publications and special tabulations. Prior to 1959, data for Alaska Natives are by place of occurrence, derived from special NOVS tabulations. Beginning in 1959, the year of Alaska's Statehood, official vital statistics data are reported by place of residence as for all other States.

Infant Deaths and Infant Death Rates, Indian and Alaska Native  
and Infant Death Rates, All Races For Specified Years 1/

Year	Indian 2/			Alaska Native 2/		
	All States excl. Alaska Infant deaths	24 Fed. Res. States		All Races Infant deaths per 1,000 live births	Number	Per 1,000 live births (3-yr. average)
		Infant deaths				
		Number	Per 1,000 live births			
1960	950	906	47.2	25.7	3/ 150	-
1959	901	870	46.7	26.4	3/ 146	74.5
1958	1,017	989	56.7	27.1	134	75.2
1957	1,023	989	58.2	26.3	147	78.7
1956	931	900	56.1	26.0	166	80.9
1955	960	936	61.2	26.4	129	79.4
1954	1,011	986	65.5	26.6	125	83.4
1953	1,136	1,118	78.5	27.8	155	87.3
1952	1,091	1,064	76.4	28.4	127	96.5
1951	1,146	1,117	83.8	28.4	154	96.2
1950	1,097	1,064	83.0	29.2	135	97.6
1949	1,078	1,049	89.0	31.3	118	-
1940	1,077	1,051	115.2	47.0	NA	NA

1/ Indian and All Races rates for single years. Alaska Native rates, due to relatively small and fluctuating numbers, are 3-year averages centered at the midpoint year.

2/ Rates based on registered births and deaths without correction for under-registration.

3/ 1959 and 1960 data by place of residence.

Alaska Native Infant Deaths and Infant Death Rates  
by Selected Cause, For Specified Periods

Cause of death	Number of infant deaths					
	1960 <sup>1/</sup>	1959	1958	1957	1956	1955
All infant deaths	153	146	134	147	166	129
Certain diseases of early infancy	55	64	51	47	47	36
Respiratory diseases	45	36	33	45	54	42
Digestive diseases	17	5	7	12	9	9
Congenital malformations	4	13	8	8	6	6
Infective and parasitic diseases	4	9	4	8	20	8
Accidents	9	8	4	7	12	9
Symptoms and ill-defined conditions	3	8	16	13	15	17
All other	16	3	11	7	3	2

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	Infant deaths per 1,000 live births		
	1958-1960 <sup>1/</sup> Average	1956-1958 Average	1954-1956 Average
All infant deaths	74.5	78.7	79.5
Certain diseases of early infancy	29.2	25.5	22.7
Respiratory diseases	19.6	23.2	25.8
Digestive diseases	5.0	4.9	4.2
Congenital malformations	4.3	3.9	3.0
Infective and parasitic diseases	2.9	5.6	7.0
Accidents	3.6	4.0	5.3
Symptoms and ill-defined conditions	4.6	7.7	9.5
All other	5.2	3.7	2.1

<sup>1/</sup> 1960 data based on special information from the Alaska Department of Health and Welfare.

Neonatal and Postneonatal Death Rates by Cause  
Alaska Native and Indian, 1958-1960 Average  
and All Races, 1959

Cause of death	Infant deaths per 1,000 live births							
	Alaska Native		Indian 1/		All Races			
	Under 28 days	28 days - 11 months	Under 28 days	28 days - 11 months	Under 28 days	28 days - 11 months	28 days - 11 months	
All infant deaths	32.7	41.3	20.2	29.9	19.0	7.4		
Certain diseases of early infancy:								
Immaturity unqualified	<u>26.0</u>	<u>2.6</u>	<u>15.2</u>	<u>1.9</u>	<u>15.6</u>	<u>0.4</u>		
Postnatal asphyxia and atelectasis	8.9	0	4.1	2/ 0.1	4.7	3/ 0.1		
Birth injuries	4.0	2/ 0.2	3.2	2/ 0	4.6	3/ 0		
Pneumonia of newborn	3.3	0	2.5	0	2.5	3/ 0		
Diarrhea of newborn	3.6	0	1.6	0	0.9	3/ 0.3		
Other diseases of early infancy	<u>2/ 0.3</u>	2.2	0.4	3/ 1.7	0.1	0.3		
	5.8		3.3		2.9			
Congenital malformations	1.9	2.2	2.4	1.7	2.4	1.3		
Respiratory diseases	<u>2/ 1.5</u>	18.8	<u>2/ 0.1</u>	11.0	0.1	2.9		
Digestive diseases	0	5.7	<u>2/ 0.1</u>	5.9	0.1	0.7		
Infective and parasitic diseases	<u>2/ 0.5</u>	2.6	<u>2/ 0.1</u>	2.3	3/ 0.3			
Accidents	<u>2/ 0.3</u>	3.4	0.6	1.8	0.1	0.8		
Symptoms and ill-defined conditions	<u>2/ 1.5</u>	3.1	1.0	2.6	0.2	0.3		
All other	<u>2/ 0.9</u>	2.9	0.6	2.8	0.4	0.8		

1/ Data are for 24 Federal Indian Reservation States.

2/ Rate based on total of 10 deaths or less.

3/ Rate more than 0 but less than 0.05.

Note: Total of rates for individual causes do not add to total, all causes, because of rounding and omission of rates less than 0.05.

Rates for Leading Causes of Death, For Specified Periods  
Alaska Native, Indian, and All Races  
(Deaths Per 100,000 Population)

Cause of death	Alaska Native 1/				Indian	
	1952-1954		1953-1955		24 Federal Res. States 1958-1960 Average	All Races 1959 (Single year)
	Average		Average			
All Causes	1,374.9	1,214.0	1,003.3	948.6	909.3	939.1
Accidents	179.7	170.8	177.8	188.0	151.0	52.2
Diseases of heart	73.4	80.6	86.0	76.3	142.5	363.4
Influenza and pneumonia 3/	161.4	159.3	118.5	118.9	82.9	31.2
Certain dis. of early infancy 4/	95.7	101.7	135.2	137.3	70.0	38.5
Malignant neoplasms	40.6	42.2	68.4	57.8	67.1	147.4
Vascular lesions affecting CNS	37.7	27.8	39.2	36.1	47.9	108.5
Gastritis, duodenitis, enteritis, colitis 5/	20.3	20.2	21.7	26.5	29.4	4.4
Tuberculosis, all forms	360.4	237.0	67.6	44.2	27.9	6.5
Congenital malformations	22.2	22.1	26.7	22.5	20.4	12.3
Diabetes mellitus	6/	6/	6/	6/	15.9	15.9

1/ 1959 and 1960 data by place of residence. Previous data, except tuberculosis, by place of occurrence.

2/ 1960 data are based on special information from the Alaska Department of Health and Welfare.

3/ Excludes pneumonia of newborn.

4/ Includes immaturity unqualified, postnatal asphyxia and atelectasis, birth injuries, pneumonia and diarrhea of newborn.

5/ Excludes diarrhea of newborn.

6/ Less than 10 deaths in 3-year period - no rates computed.

Note: Rates for all other causes not shown; therefore, rates for leading causes do not add to total.

Tuberculosis Deaths and Death Rates  
Alaska Native, Indian, and All Races  
1949 - 1960

Year	Deaths per 100,000 population				
	Alaska Native Tuberculosis Deaths 1/	Alaska Native (3-Year Average) 2/	Indian		All Races (Single Year)
			24 Federal Reservation States (Single Year)		
1960	17	-	21.5		5.9
1959	23	44.2	31.1		6.5
1958	15	67.6	31.0		7.1
1957	43	85.9	32.5		7.8
1956	41	116.8	39.3		8.4
1955	45	157.5	49.1		9.1
1954	82	237.0	53.8		10.2
1953	120	360.4	67.3		12.3
1952	171	477.2	93.4		15.8
1951	218	590.4	112.8		20.1
1950	228	641.1	133.0		22.5
1949	206	-	144.4		26.3

1/ Reported by place of residence beginning with 1952; all are single year numbers.

2/ Alaska Native rates, due to relatively small and fluctuating numbers, are 3-year averages centered at the midpoint year. The single year rate for 1960 is 39.4 per 100,000 population.

Tuberculosis Incidence Rates  
Indian, Alaska Native, and U. S., All Races  
1953 - 1961

Year	Rates per 100,000 population for reported cases		
	Indian - 24 Fed. Res. States 1/	Alaska Native 2/	All Races 3/
1961	284.8	562.8	NA
1960	292.3	547.5	39.4
1959	338.2	1,048.0	42.6
1958	421.8	978.7	47.5
1957	426.9	1,649.7	51.0
1956	474.3	2,283.8	54.1
1955	563.2	2,325.7	60.1
1954	571.5	2,452.4	62.4
1953	651.3	1,820.3	67.5

1/ Based on monthly notifiable disease reports from PHS facilities.

2/ Based on PHS Alaska Native Health Area Office Annual Reports, 1953-1956; Alaska State Annual Tuberculosis Reports, 1957-1961.

3/ Derived from NOVS, Morbidity and Mortality, Annual Supplements, Volumes 2 through 9. Data for 1960 include unpublished data on Group B (inactive) cases for comparability with previous years.

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- \*Special acknowledgment is extended to Dr. Margaret Lantis, Anthropologist, Arctic Health Research Center, for her review of the background material and her helpful suggestions.